

Consolidated Annual Report, Program Year 2012 - 2013

Maine

Step 3: Use of Funds: Part C

1. During the reporting year, how did your state provide support for career and technical education programs that improve the academic and career and technical skills of students through the integration of academics with career and technical education?

Leadership funds were used to pay for positions at the State level to provide workshops and in addition, other funds were used to increase the amount of support provided in this area.

Career and Technical Education Mentor Training: MDOE CTE staff and MACTE continued to provide opportunities for teachers to learn about literacy strategies through the highly-successful CTE Literacy Mentor Network which was supported by consultants from Public Consulting Group's (PCG's) Center for Resource Management (CRM). Mentors were trained in content area literacy strategies, developed examples related to their specific CTE areas, and practiced co-facilitating professional development with colleagues using literacy workshop facilitation guides. Teachers who had been previously trained as mentors were provided the opportunity to take their own learning to a deeper level with the goal of embedding the strategies in their day-to-day teaching. The outcome has been a network of literacy mentors who are teaching other teachers how to use before/during/after reading, writing, and vocabulary development strategies within their CTE classes and have developed additional CTE examples of applications for the CTE literacy facilitation guide. We are currently in the process of developing another literacy initiative which will incorporate the new Common Core standards within our curriculums and provide additional training on literacy strategies within the classroom.

Promising Practices Statewide initiative: Maine CTE schools were invited to participate in an initiative to identify, support, and disseminate information about promising programs and approaches that improve literacy, rigor and relevance in CTE courses. These promising practices continued to be documented and made available on the <http://www.maine.gov/doe/cte/index.html> website.

Numeracy: Maine DOE continued efforts to strengthen numeracy through a one-day review training for teacher participants of the past two years of implementation of the Math-in-CTE program. The Math-in-CTE program was developed by the National Research Council for Career and Technical Education (NRCCTE). Since 2008, Maine has sent seven math teachers, eight CTE teachers, one high school principal, and three CTE directors to introductory trainings on Math-in-CTE. These participants became Maine's original Math-in-CTE planning committee and provided four teacher leaders who worked under the mentorship of an NRCCTE consultant to deliver trainings. In its second year of implementation completed in May 2012, Maine DOE addressed CTE program areas of Culinary Arts and Automotive Technology with thirteen Maine CTE teachers from ten CTE schools, along with their mathematics teacher partners from ten Maine middle/high schools, as well as two Vermont teachers (one mathematics and one CTE teacher), accompanied by their representative from the Vermont Department of Education. In the coming year, Maine hopes to disseminate to past Math-in-CTE participants documentation prepared listing nation-wide websites that include Math-in-CTE lessons. Maine also hopes to investigate the utility of other, less professional development-intensive measures of enhancing mathematics/numeracy education in CTE.

Postsecondary – MCCS:

All MCCS CTE Associate Degrees and most Certificate programs include a combination of both academic and technical content, providing the CTE student with a well-rounded educational experience, as mandated by MCCS policy and NEASC accreditation standards. MCCS policy dictates that approximately one-third of all Associate in Applied Science programs and one-half of the Associate in Science programs are comprised of general education courses. Faculty teaching liberal arts courses confer regularly with CTE faculty to assure that students are developing the appropriate skills to succeed both academically and in their chosen technical field. Advisors, both within the faculty and the administration, assist students in navigating all aspects of their programs and in seeking help as necessary. Ultimately, it is each college's goal to graduate students who can be considered well educated.

2. During the reporting year, how did your state support partnerships among local educational agencies, institutions of higher education, adult education providers, and, as appropriate, other entities, such as employers, labor organizations, intermediaries, parents, and local partnerships, to enable students to achieve state academic standards, and career and technical skills.

A position at the State level is paid with Leadership funds to facilitate partnerships. In addition, other funds were used to provide increased support in this area.

Secondary

Each of the secondary and postsecondary CTE programs has program advisory committees (PACs) made up of parents, teachers, administrators and business and industry partners. These PACs meet at least once annually (with a suggestion to meet once a semester) to review current curriculum, suggest and approve changes to curriculum and course offerings and provide feedback on the successes or failures of each program. Each CTE school is required, as a condition of Perkins funding, to make students aware of Pre-apprenticeship opportunities and to have contact with the MDOL Pre-apprenticeship program representative each school year. Each approved Perkins grantee was required to have 50% of their programs articulated with Postsecondary education and have at least one CTE Program of Study (CTE POS) in place by July 1, 2008. These agreements include the rigorous academics required to participate in CTE and to graduate proficient in the CTE program requirements and the course(s) at the postsecondary level. The CTE POS requirement has generated greater collaboration between the partner academic high schools, the secondary CTE schools and the postsecondary institutions. Each agreement is signed by all three parties. Many partnerships are formed and a number of the schools have developed and executed several Programs of Study with their academic and postsecondary partners.

Secondary Partnerships with Industry

Collaboration between several local region and MDOL to assist the CTE Region in becoming SHAPE awarded. Collaboration with OSHA Region One OTC to secure discounted price for training courses. CTE is an active member of the Maine Manufacturers Association Education Committee. CTE is lead department in expanding industry related safety and OSHA training for CTE instructors. On file; Live Work Policies been reviewed/updated; Expiration Date Programs create a plan for moving towards national standards and/or a Industry Recognized Credential Programs nationally aligned Require that each CTE school have contact with MDOL Pre-apprenticeship program representative each school year Industry Collaboration and make students aware of Pre-apprenticeship opportunities

Status of the Programs of Study in the State of Maine

In the State of Maine there are 27 Regions or Centers and one K-12 school which offer Career and Technical Education programs at the secondary level. Programs of Study delineate a seamless link between rigorous secondary academics, CTE programs at the Centers and Regions, and post-secondary pathways at the seven Maine community college campuses. All CTE centers and regions are required to submit at least one Program of Study and are encouraged to develop and submit as many as possible. All schools will be required to have at least 20% of programs in Programs of Study by the next grant year. The following is a breakdown of the types of CTE programs that are represented in the submitted and approved Programs of Study: Accounting, Automotive Collision Repair, Automotive Technology, Computer Electronics, Computer Technology, Building Construction Technology, Culinary Arts, Business Administration, Digital Graphics, Drafting, Early Childhood Education, Electrical Technology, Emergency Services, Health Occupations, Machine Tool Technology, Medical Careers, Outdoor Resources, Welding. The complete list by Center or Region is as follows:

Maine Programs of Study Submissions FY 2011-2013

CTE Center or Region, Program Name, HS Partners, College Partner

Bath RVC, Automotive Technology, Boothbay, Lincoln, Morse, Wiscasset, CMCC

Biddeford RCT, (2) Automotive Technology, Drafting, Biddeford, Kennebunk, Thornton, Old Orchard Beach, CMCC, YCCC

Capital Area TC, Machine Tool Technology, Cony, Erskine, Gardiner, Hall-Dale, Monmouth, Richmond, Winthrop, KVCC

Caribou RATC, Computer Electronics, Ashland, Caribou, Easton, Fort Fairfield, Limestone, Presque Isle, Washburn, NMCC

Coastal. Washington Cnty., Culinary Arts, Machias, Narraguagus, Jonesport-Beals, WCCC

Foster Technology Center, (2) Automotive Technology, Building Construction, Jay, Livermore, Mt. Abram, Mt.
Blue, Rangeley, CMCC

Hancock County TC, Automotive Technology, Bucksport, Ellsworth, MDI, Narraguagus, Sumner, CMCC

Lake Reg. VC, Automotive Technology, Business Office Technology, Construction Technology, Culinary Arts, Lake Region, Fryeburg Academy, Sacopee Valley, CMCC

Lewiston RTC, (2) Automotive Technology, Early Childhood Education, Edward Little, Leavitt, Lewiston, Lisbon, Oak Hill, Poland, CMCC

Mid-Maine TC, (4) Computer Technology, Electrical Technology, Emergency Services, Precision Machining,
Lawrence, Messalonskee, Waterville, Winslow, KVCC

MSAD 24, Van Buren, Accounting Information Systems, Precision Metals Manufacturing, N/A, NMCC

PATHS-Portland, Carpentry, Cape Elizabeth, Casco Bay, Deering, Falmouth, Gray-New Gloucester, Greely,
Portland, S. Portland, Yarmouth, SMCC

Presque Isle RTC, Business Technology, Ashland, Caribou, Presque Isle, Washburn, Fort Fairfield, Limestone, Mars Hill, Easton, , NMCC

Reg. 2, S Aroostook, Early Childhood Occupations, East Grand, Hodgdon, Houlton, Katahdin,
S. Aroostook, NMCC

Reg. 3, N Penobscot, Computer Electronics, Medical Office Administration, Mattanawacook, PVHS, Schenck,
Stearns, NMCC

Reg. 4, UTC, Building Construction Technology, Bangor, Brewer, Central, Hampden, Hermon, Old Town, Orono, EMCC

Reg. 7, Waldo Cnty., Computer Technology, Belfast, Mount View, Searsport, KVCC

Reg. 8, Mid-Coast, (4) Auto. Technology, Culinary Arts, Design Technology, Machine Tool, Residential Construction, Camden Hills, Isleboro, Medomak Valley, North Haven, Rockland, Vinalhaven, CMCC

Reg. 9, Mexico, Valley, Telstar, (3) Automotive Technology, Computer Technology, Machine Tool Technology, Dirigo, Mountain CMCC

Reg. 10, Brunswick, (8) Auto. Collision, Auto Technology, Building Trades, Commercial Art, Early Childhood, Culinary Arts/Food Trades, Health Occupations, Welding, Brunswick, Freeport, Mt. Ararat, SMCC, CMCC, NMCC

Reg. 11 Oxford Hills, (9) Accounting, Auto. Technology, Computer Technology, Construction, Culinary Arts, Early
Childhood Ed., Graph. Printing
&&&&&&&&&&&&&&&&&&&&&& Design, Law Enforcement,
Visual Arts, Buckfield, Oxford Hills, CMCC

Sanford RVC, (2) Digital Design, Information Technology, Marshwood, Massabesic, Noble, Sanford HS, Traip, Wells,
York, SMCC, YCCC

Somerset CTC, (6) Auto. Technology, Carpentry, Dig. Graphic Arts, Electrical, Information Sys. Technology, Outdoor Resources, Carrabec, Madison, MCI, Skowhegan, Valley, CMCC, KVCC

St Croix RTC, (3) Automotive Technology, Child Care Provider, Nursing Assistant, Calais, Shead, Woodland, WCCC

St John Valley TC, Early Childhood Occupations, Fort Kent, Madawaska, Wisdom, NMCC

Tri-County TC, (3) Automotive Technology, Health Occupations, Metals Manufacturing,
Dexter, Foxcroft, Nokomis, Penquis, CMCC, SMCC

Westbrook RVC, Electrical, Bonny Eagle, Gorham, Scarborough, Westbrook, Windham, NMCC

Postsecondary – MCCS: Each of the colleges of the MCCS has established and continues to cultivate relationships with educational and employment partners assuring that programs meet students where they are as incoming CTE students and follow a path to successful completion of course work and credentials. Perkins funding allows for some of the following student success initiatives: academic advising, tutoring, career and transfer counseling, childcare and transportation assistance, and educational assessment.

In addition, the Maine State Perkins Plan includes a requirement for each college to connect with the Maine Department of Labor to seek out and promote apprenticeships, as well as having an increasing number of Programs of Study in place between the colleges and secondary CTE centers.

Of the 7,997 CTE concentrators in 2011, 6,095 (75%) either graduated or remained in higher education. 4,054 of those students retained were enrolled in the same institution from Fall 2011 to Fall 2012, with 521 transferring to another institution. Of the 1,592 non-transferring graduates, X were employed based on a data match conducted by the Maine Department of Labor.

3. During the reporting year, did your state use Perkins funds to improve career guidance and academic counseling programs?

Yes

No Leadership funds are used for this activity, but local funds and other Perkins funds were used to provide students to both academic and career guidance.

Secondary: All Maine high school students have access to a guidance counselor for career and academic counseling at their home school. The CTE directors and student services/guidance personnel have frequent contact with these people. Partner sending school guidance staff often meet as members of the CTE center/region advisory committee.

The CTE Essential Programs and Service (EPS) funding formula due to be implemented in the future includes the allocation of funds for one guidance counselor/student services coordinator per 250 students. With eighteen of our twenty-seven schools enrolling more than 250 this means these schools will receive a State allocation for guidance/student services.

Postsecondary: The colleges within the MCCS continue to improve advising services to assist students through their academic careers and into the workforce. Several of the colleges have professional advisors available year-round, in addition to faculty advisors, with whom students meet regularly throughout the academic year.

4. During the reporting year, did your state use Perkins funds to establish agreements, including articulation agreements, between secondary school and postsecondary career and technical education programs to provide postsecondary education and training opportunities for students?

Yes

Leadership funds provide funding for a position at the State level to facilitate agreements between secondary and postsecondary and training opportunities for CTE students. In addition other Perkins funds and other local funds are used at both the secondary and postsecondary levels to promote this work.

Secondary

The secondary CTE centers/regions and Community College campuses are jointly responsible for developing and executing Articulation Agreements. Secondary and postsecondary faculties are partnering to identify competencies a student will need to successfully transition into the professional/technical program(s) being articulated. Secondary and postsecondary faculties will agree upon competencies to be examined for the courses to be articulated. They will jointly develop an Articulation Agreement listing the student requirements needed to achieve the articulated credits. Maine has three types of articulation agreements: dual, escrow, and enhanced articulation. The schools are required to have a designated percentage of their programs articulated and three enhanced articulations during the 5 year grant period. The State also requires that a contact/position be identified by the individual postsecondary Community Colleges and the individual secondary CTE schools to be responsible for the facilitation, record keeping, and reporting on Articulation, Enhanced Articulation and Program of Study Agreements.

IMPLEMENTATION DATE	% OF PROGRAMS THAT MUST BE ARTICULATED
July 1, 2009	10%
July 1, 2010	20%
July 1, 2011	30%
July 1, 2012	40%
July 1, 2013	50%

Enhanced Articulation in the State of Maine

Two Enhanced Articulation agreements, between the participating Centers and Regions and the Maine Community College System, have been developed since 2009. The first was Culinary Arts, which is up for a three year review. The second, Electrical Technology, was proposed by MACTE and finalized in June 2012. Students who complete the basic requirements outlined in these agreements are eligible to receive anywhere from 3-6 escrow credits depending on which Maine community college they attend for completion of the articulated programs. The three year cycle for Enhanced Agreements was completed in 2012 for Culinary Arts so it was reviewed and renewed by all parties. According the State CTE plan a third Enhanced Articulation is due to be developed and executed during this Perkins grant cycle. During 2013, a Precision Machining Enhanced proposal was developed by the Maine Community College System. After much deliberation, changes to the required NIMS Level I standards to be covered by the agreement have been proposed by the Machine Tool Technology group for the secondary CTE programs and sent back to the Maine Community College System. It is anticipated that this agreement will be finalized during FY '14. Additionally a change in the agreement language from "Enhanced" to statewide articulation and the move away from escrow credits to dual credit/dual enrollment has been proposed by MCCA and accepted by MDOE.

Postsecondary:

The Maine State Perkins five-year plan includes articulation agreements as an integral piece, with requirements to establish and maintain individual college to CTE center articulations and programs of study, as well as three, system-wide enhanced articulation agreements. Each college has staff focused on articulation, making connections between college faculty and CTE programs, and the Academic Deans directly oversee the development of Enhanced Articulations. In 2012-2013, the first enhanced articulation in Culinary Arts was renewed after three successful years of implementation. Our second, in Electrical Technology, continues. A third, this one in Integrated Manufacturing, has encountered issues due to differing standards for available equipment. However, these are nearly resolved and a signed agreement is expected in the 2013-2014 academic year.

5. During the reporting year, did your state use Perkins funds to support initiatives to facilitate the transition of sub baccalaureate career and technical education students into baccalaureate programs?

Yes

No Leadership funds are used for this activity, but local funds and other Perkins funds were used to support initiatives to facilitate the transition of sub baccalaureate CTE students into baccalaureate programs.

Postsecondary:

The colleges of the MCCA work closely with the University of Maine System and other four year colleges in Maine and beyond to articulate MCCA CTE programs with their baccalaureate programs. Most articulation agreements guarantee junior (third year) standing at their transfer institution.

6. During the reporting year, did your state use Perkins funds to support career and technical student organizations?

Yes

Perkins target reserve and local funds are used to support student activities in Leadership conferences of CTSOs, but no leadership funds are used for this activity.

Secondary: Every secondary CTE school is required to offer students the opportunity to participate in a student leadership organization. Most of our schools participate in the National Career and Technical Student Organizations, FFA, FCCLA, HOSA, DECA, SkillsUSA and FBLA. Several schools offer more than one of these leadership groups to their students. Perkins funds are used to grant each organization \$2,000 to use for leadership activities. The CTE state consultants provide technical assistance, leadership training and judging at the state competitions. The State Advisors for FBLA and FFA worked together to plan and deliver a joint leadership training for November 2012. Further such collaborative efforts are hoped for, however, scheduling will not permit these for November 2013.

2012-13 to plan a joint leadership training for November 2013 (other invited groups were not available). Such an effort could result in additional collaboration among students and leaders of these organizations, as well as some cost savings.

Postsecondary:

Two of the MCCC colleges, SMCC and WCCC, participate in the Career and Technical Student Organization SkillsUSA, training and competing nationally each year. Perkins funding is not currently used by this organization. In addition, gender equity and CTE student clubs exist on most campuses, some of which are funded in part with Perkins money.

7. During the reporting year, did your state use Perkins funds to support career and technical education programs that offer experience in, and understanding of, all aspects of an industry for which students are preparing to enter?

Yes

No Leadership funds were used, but other Perkins and other local funds are used to support career and technical education programs that offer experience in, and understanding of, all aspects of an industry for which students are preparing to enter, but no leadership funds are used for this activity.

Secondary: Maine secondary and postsecondary schools expose CTE students to all aspects of industry through: business internships; classroom guest speakers from business and industry; clinical or experiential opportunities as part of the CTE programs; continual enhancement of the CTE programs based on advancements in the field; co-op opportunities; engaged advisory committees; job fairs; and pre- apprenticeship opportunities. The MDOE-CTE field tested a mentorship program to help increase more real life opportunities.

Postsecondary:

It is important to expose students to all aspects of their chosen field while they are still in a position to decide if it's truly their calling and to appropriately prepare them for the workplace. The MCCC colleges do this through a variety of means, including but not limited to: clinical rotations for health science programs, cooperative work experiences, externships, field experiences, field trips to business/industry settings, guest speakers currently working in the field, industry specific assignments, integration of industry based certifications and testing, learning experiences modeling industry standards and practices, credit bearing internships with area employers, and paid, on-the-job training.

8. During the reporting year, did your state use Perkins funds to support partnerships between education and business, or business intermediaries, including cooperative education and adjunct faculty arrangements at the secondary and postsecondary levels?

Yes

Leadership funds provide funding for a position at the State level to promote partnerships. In addition other Perkins funds and other local funds are used at both the secondary and postsecondary levels to promote this work.

Secondary: The following partnerships and activities support the ongoing collaboration between MDOE-CTE and industry.

PAC reviewed current curriculum(s) Articulation agreements, Enhanced Articulation Agreements and Programs of Study on file Apprenticeship Collaboration between several local region and MDOL to assist the CTE Region in becoming SHAPE awarded. Collaboration with OSHA Region One OTC to secure discounted price for training courses. CTE is actively engaged in STEM partnerships within the CTE framework CTE is an active member of the Maine Manufacturers Association Education Committee CTE is an active member of the new Robotics Institute of Maine CTE is lead department in expanding industry related safety and OSHA training for CTE instructors Exploring expanding pre-apprenticeship opportunities PAC Membership(s) includes teachers, business/industry partners, secondary/postsecondary constituents, students and other interested stakeholders Minutes on file for each PAC meeting On file; Live Work Policies been reviewed/updated; Expiration Date Program(s) create a plan for moving towards national standards and/or a Industry Recognized Credential Program(s) nationally aligned Require that each CTE school have contact with MDOL Pre-apprenticeship program representative each school year Industry Collaboration and make students aware of Pre-apprenticeship opportunities Secondary Program Advisory Committees Secondary Program Advisory Committees meet annually Maine currently has 10 secondary cooperative education CTE programs and satellite programs.

Postsecondary:

The Maine State Perkins Plan indicates that each postsecondary CTE school receiving Perkins funding be in contact with the Maine Department of Labor apprenticeship program annually. The extension plans also require that increasing numbers of Programs of Study are established between secondary and postsecondary CTE programs. Dual credit articulations often involve approval of secondary CTE faculty as adjuncts. These collaborative efforts help to ensure curricular coordination and non-duplication.

Business partnerships also exist between colleges and industry partners, who sit on program advisory boards to guide curriculum, visit classrooms to interact with students, and participate in career guidance, internship/externship programs, and cooperative education. Colleges have representatives on local workforce investment act boards, and WIA members participate on college boards in an effort to keep informed and connected. The MCCS System's own Center for Career Development keeps up-to-date on emerging industry and expanding companies in the state.

9. During the reporting year, did your state use Perkins funds to support the improvement or development of new career and technical education courses and initiatives, including career clusters, career academies, and distance education?

Yes

Leadership funds provide funding for a position at the State level to facilitate this work. In addition other Perkins funds and other local funds are used at both the secondary and postsecondary levels to promote this work.

New programs: Between July 1, 2012 and June 30, 2013, four of the twenty-seven Maine CTE schools submitted five proposals for new programs. In developing a new program proposal, schools were asked to indicate what national standards they wish to align the curriculum with, what industry credential students have the opportunity to earn, and whether the new program is supported by the local community. In addition schools were asked to indicate the post-secondary articulation and/or dual enrollment agreements available or will be pursued and Programs of Study available. Schools provided labor market statistics and were encouraged to consider new and emerging technologies. Maine has developed a framework which organizes its programs around career clusters. All of the CTE programs are categorized by the Classification of Instructional Program (CIP) codes. The schools offer a variety of Trade and Industry programs in the traditional CTE classroom and community setting.

Exploratory Programs: An exploratory CTE program is one that offers a student the opportunity to explore at least four programs at the CTE region/center. The exploratory program is a component of a sequence of courses of the related specific CTE programs that are offered for exploration. These programs are typically offered to students in grades 9 and 10 in preparation for entry into a full CTE program at grade 11. Two CTE schools have submitted new exploratory program applications and these should be included in next year's report.

Postsecondary:

Improving and expanding CTE programs to meet the needs of students, industry, and the state of Maine is a priority of the colleges of the MCCS. Both physical and virtual expansion is happening for many of the colleges' programs in an effort to reach as many residents as possible.

10. During the reporting year, did your state use Perkins funds to provide activities to support entrepreneurship education and training?

No

11. During the reporting year, did your state use Perkins funds to improve the recruitment and retention of career and technical education teachers, faculty, administrators, or career guidance and academic counselors, and the transition to teaching from business and industry, including small business?

Yes

Leadership funds provide funding for a position at the State level to assist with this work. In addition other Perkins funds and other local funds are used at both the secondary and postsecondary levels to promote this work.

Secondary: The Maine Department of Education requires that all new hires for CTE submit a certification application for conditional certification and a resume of work history. They must also register for and be fingerprinted. The superintendent of schools must submit a Conditional Affidavit for conditional teacher certification which is renewed if the following requirements are met:

Year 1 – Take and pass Praxis I Test – Pre-Professional Skills Test (PPST); complete an approved course for “Teaching Exceptional Students in the Regular Classroom”

Year 2 – Take and pass Praxis II Test

Year 3 – Take and pass Principles of Learning and Teaching Test (PLT)

Additionally, the applicants must hold a valid Maine certificate or license as required by State law or rule to practice the craft or trade to be taught. All new CTE instructors must meet a five year recency requirement in occupational experience. Finally CTE teachers also must meet minimum education attainment requirements and have paid employment hours, between 4000 and 8000, depending on the educational level, in the occupational program to be taught. A number of changes in the certification requirements have been proposed for CTE instructors and been forwarded to the State Board of Education and ultimately to the State Legislature. Maine is currently working to make changes to these requirements for CTE instructors.

Postsecondary:

Recruitment at the colleges of the MCCS use a variety of methods to recruit career and technical faculty, including, but not limited to newspaper and online advertisements, professional and academic journals, and through industry relationships and associations. As a rule, CTE faculty at the community colleges often enter teaching through the expertise they have gained in business and industry, rather than coming through academic channels. Development of teaching skills takes place on the job, via credit course work, non-credit trainings, peer to peer assistance/mentoring/review, and regular faculty development workshops.

12. During the reporting year, did your state use Perkins funds to support occupational and employment information resources?

No